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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/807,315

03/24/2004

Ryuichiro Takamatsu

2004_0470A

3786

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7590

04/01/2008

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2033 K STREET N. W.

SUITE 800

WASHINGTON, DC 20006-1021

EXAMINER

PARK, CHAN S

ART UNIT

PAPER NUMBER

2625

MAIL DATE

DELIVERY MODE

04/01/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/807,315	Applicant(s) TAKAMATSU ET AL.	
	Examiner CHAN S. PARK	Art Unit 2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 March 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|----------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>6/4/04 & 2/11/07</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the print content description data indicating 1) the plurality of images are arranged in the sheet to be printed, 2) each of the plurality of images is printed at the number of pixels smaller than a predetermined number of pixel, **and** 3) the plurality of images are different from one another (claims 3 and 4) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered. It is noted that fig. 6 only shows the print content description data indicating 1) the plurality of images are arranged in the sheet to be printed or 2) each of the plurality of images is printed at the number of pixels smaller than a predetermined number of pixel.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an

application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. Claim 10 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claim 10 is drawn to functional descriptive material NOT claimed as residing on a computer readable medium. MPEP

2106.IV.B.1(a) (Functional Descriptive Material) states:

"Data structures not claimed as embodied in a computer-readable medium are descriptive material per se and are not statutory because they are not capable of causing functional change in the computer."

"Such claimed data structures do not define any structural or functional interrelationships between the data structure and other claimed aspects of the invention which permit the data structure's functionality to be realized."

Also, refer to page 53 of the Interim Guideline.

Claim 10, while defining a program product, does not define a "computer-readable medium" and is thus non-statutory for that reason. A program product can range from paper on which the program is written, to a program simply contemplated and memorized by a person. The examiner suggests amending the claim to state, "A

computer-readable medium encoded with a computer program...” in order to make the claim statutory.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-7, 9 and 10 are rejected under 35 U.S.C. 102(e) as being anticipated by Hara et al. U.S. Patent No. 7,009,728 (hereinafter Hara).

With respect to claim 1, Hara discloses a printing apparatus (image printer in fig. 1) for printing an image based on image data (printing of images in fig. 23), comprising:

a priority decision unit operable to decide which to prioritize, a quality of the image at the time of printing (non-index, non-synthesis image printing mode in col. 5, lines 16-19) or a speed of processing the image data (index printing mode in col. 5, line 20 or synthesis printing mode in fig. 9), based on print content description data including information on layout instructions for printing the image (deciding the resolution of image based on the mode/layout selected thus improving either the printing speed or the printing quality of the image in col. 8, lines 51-56 & col. 12, lines 4-10);

a print data generation unit operable to generate print data including the image, based on the following: the print content description data, the decision made by the priority decision unit, and the image data (generating print data (S412 in fig. 7 & S6113 in fig. 10) of the selected images based on the index/layout image generated (S401 & S6105 in fig. 10) in col. 10, lines 61-64); and

a printing unit operable to print the print data generated by the print data generation unit (printing the images in S416 in fig. 7).

With respect to claim 2, Hara discloses the printing apparatus according to claim 1,

wherein in a case where a plurality of images are arranged in a sheet (selecting a plurality of images in col. 11, lines 59-67), and the print content description data indicates that the plurality of images are arranged in the sheet to be printed (user input/selected images indicating the plurality of images in col. 12, lines 4-10), the priority decision unit decides to prioritize the speed of processing the image data rather than the quality of each of the plurality of images at the time of printing (deciding to convert/print the images in reduced resolution/size in col. 12, lines 4-10), and the print data generation unit generates the print data based on said decision made by the priority decision unit (generating print data in col. 12, lines 20-26 & col. 8, lines 51-56).

With respect to claim 3, Hara discloses the printing apparatus according to claim 1,

wherein in a case where a plurality of images are arranged in a sheet (selecting a plurality of images in col. 11, lines 59-67), the print content description data indicates

that: i) the plurality of images are arranged in the sheet to be printed (user input/selected images indicating the plurality of images in col. 12, lines 4-10); and ii) each of the plurality of images is printed at the number of pixels smaller than a predetermined number of pixels (indicating the images to be printed in a size smaller than the original image size according to col. 12, lines 4-6 and figs. 22 & 29), the priority decision unit decides that the speed of processing the image data should be prioritized rather than the quality of said each of the plurality of images at the time of printing (deciding to convert/print the images in reduced resolution/size in col. 12, lines 4-10), and the print data generation unit generates the print data based on said decision made by the priority decision unit (generating print data in col. 12, lines 20-26 & col. 8, lines 51-56).

With respect to claim 4, Hara discloses the printing apparatus according to claim 1,

wherein in a case where: 1) a plurality of images are arranged in a sheet (selecting a plurality of images in col. 11, lines 59-67); 2) the print content description data indicates that: i) the plurality of images are arranged in the sheet to be printed (user input/selected images indicating the plurality of images in col. 12, lines 4-10), and ii) each of the plurality of images is printed at the number of pixels smaller than a predetermined number of pixels (indicating the images to be printed in a size smaller than the original image size according to col. 12, lines 4-6 and figs. 22 & 29); and 3) the plurality of images are different from one another (selecting multiple images in col. 11, lines 65-67), the priority decision unit decides that the speed of processing the image

data should be prioritized rather than the quality of said each of the plurality of images at the time of printing (deciding to convert/print the images in reduced resolution/size in col. 12, lines 4-10), and the print data generation unit generates the print data based on said decision made by the priority decision unit (generating print data in col. 12, lines 20-26 & col. 8, lines 51-56).

With respect to claim 5, Hara discloses the printing apparatus according to claim 1,

wherein in a case where the print content description data indicates that the image is to be printed at the number of pixels smaller than the predetermined number of pixels (indicating the images to be printed in a size smaller than the original image size according to col. 12, lines 4-6 and figs. 22 & 29), the priority decision unit decides that the speed of processing the image data should be prioritized rather than the quality of the image at the time of printing (deciding to convert/print the images in reduced resolution/size in col. 12, lines 4-10), and the print data generation unit generates the print data based on said decision made by the priority decision unit (generating print data in col. 12, lines 20-26 & col. 8, lines 51-56).

With respect to claim 6, Hara discloses the printing apparatus according to claim 1,

wherein when the priority decision unit decides to prioritize the speed of processing the image data rather than the quality of the image at the time of printing, and both the image data of high resolution (the original generated image data) and the image data of low resolution (creation of index data reflecting the low resolution in fig.

22) are generated for the image, the print data generation unit generates the print data based on the image data of low resolution (generating print data in col. 10, lines 56-64 & col. 8, lines 51-56).

With respect to claim 7, Hara discloses the printing apparatus according to claim 1,

wherein when the priority decision unit decides to prioritize the speed of processing the image data rather than the quality of the image at the time of printing, the print data generation unit generates the print data by partly skipping plural steps taken in processing the image data (note that plural steps (selection of template and merging the template with the selected image) shown in fig. 11 are skipped according to figs. 7 and 10).

With respect to claims 9 and 10, arguments analogous to those presented for claim 1, are applicable.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hara as applied to claim 1 above, and further in view of Tatsumi Japanese Patent Publication No. 2000-059635.

With respect to claim 8, Hara discloses the printing apparatus according to claim 1, wherein the priority decision unit decides to prioritize the speed of processing the image data rather than the quality of the image at the time of printing (deciding to convert/print the images in reduced resolution/size in col. 12, lines 4-10), and Joint Photographic Experts Group format is used as a format of the image data (image data in JPEG format in col. 14, lines 24-26).

Hara, however, does not explicitly disclose that the print data is generated by decoding only a DC component of the image data.

Tatsumi discloses the image processing system comprising a unit for only decoding DC components of JPEG image data to perform image processing at a high speed (Abstract and Paragraphs 23, 36 & 37).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the printing apparatus of Hara to incorporate the method of decoding only a DC component of the JPEG image data as taught by Tatsumi.

The suggestion/motivation for doing so would have been to provide a faster image processing system at the printer (Abstract of Tatsumi).

Therefore, it would have been obvious to combine Hara with Tatsumi to obtain the invention as specified in claim 8.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHAN S. PARK whose telephone number is (571) 272-7409. The examiner can normally be reached on M-F 8am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Coles can be reached on (571) 272-7402. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/CHAN S PARK/
Examiner, Art Unit 2625

March 31, 2008